

July 29, 2005

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Ms. Elizabeth O'Donnell Executive Director Public Service Commission 211 Sower Boulevard Frankfort, KY 40602

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PUBLIC SERVICE COMMISSION

Re: PSC Case No. 2004-00321 PSC Case No. 2004-00372

Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission in the above-referenced cases an original and ten (10) copies of the Emissions Allowance Strategy Plan of East Kentucky Power Cooperative, Inc., which is submitted in compliance with Item 14 of the Settlement Agreement, which was approved by the Commission's order dated March 17, 2005.

Very truly yours,

Charles A. Lile

Senior Corporate Counsel

Enclosures

Cc: Elizabeth E. Blackford, Esq. Michael L. Kurtz, Esq.

#### **Emissions Allowance Strategy Plan**

#### Introduction

EKPC's goal in the operation of its power plants is to be in compliance with regulatory requirements while minimizing costs to its Member Systems. EKPC constantly reviews compliance options and their costs. EKPC's strategy is to develop a program that meets federal and state standards at the lowest cost while providing operational flexibility to meet all of its power production needs.

## Clean Air Act Amendments of 1990 (CAAA)

The Clean Air Act of 1990 mandated that electric utilities reduce both sulfur dioxide and nitrogen dioxide emissions from utility sources. Reduction of these emissions was to be accomplished in two phases. The first phase reductions became effective in 1995 and the second phase reductions took effect at the beginning of 2000. EKPC was able to comply with the first phase SO<sub>2</sub> reductions by using coal with lower sulfur content at the power plants. This strategy proved economical and effective in reducing EKPC Phase I emissions below the legally allowed level.

The NOx program was also implemented in two phases, beginning in 1996 and 2000. EKPC came under the NOx regulations beginning in May, 2004. The NOx program incorporates many of the same principles of the SO<sub>2</sub> trading program.

# SO<sub>2</sub> and NOx Emission Allowance Allocation

To achieve the emission reduction objective of the CAAA, emission allowances have been allocated by the Environmental Protection Agency to EKPC's affected generating units. Each allowance permits a generating unit to emit one ton of SO<sub>2</sub> or NOx during or after a specified year. For each ton of SO<sub>2</sub> or NOx emitted during a given year, one allowance is retired. Allowances may be purchased, sold, or banked. Regardless of the number of allowances a source possesses, it may not emit at levels that would violate federal or state limits set under Title IV of the CAA.

### SO<sub>2</sub> Emissions Strategy for Phase II

To comply with Phase II sulfur dioxide requirements, EKPC's current compliance strategy includes a combination of buying low-sulfur fuel, purchasing SO<sub>2</sub> allowances, and upgrading the existing scrubber or building a new one at the Spurlock 2 generating station.

### NOx Emissions Strategy for Phase II

Starting May 31, 2004, EKPC was required by law to comply with limitations on it NOx emissions. In 2002, EKPC installed Selective Catalytic Reduction ("SCR") equipment on its Spurlock 1 and Spurlock 2 units. These units were operated prior to May 31, 2004, resulting in EKPC accruing a total of 1,791 NOx emission allowances, called Early Reduction Credits.

# Strategy for Purchasing and Selling SO2 and NOx Allowances

For each year, EKPC projects the number of tons of SO<sub>2</sub> and NOx to be emitted from its plants by utilizing a generation planning model. Emission levels are also considered in EKPC's least-cost planning methodology as a factor in evaluating new generation resources or environmental related capital projects. EKPC monitors the number of tons of SO<sub>2</sub> and NOx emitted from its generating stations monthly. Based on these measured emissions and the projected generation and fuel consumption for the remainder of the year, EKPC estimates the number of SO<sub>2</sub> and NOx allowances that will be needed to be held at the end of the year in order to comply with state and federal emissions limitations. In general, EKPC will endeavor to hold in inventory a sufficient number of allowances to cover the year-to-date utilization of SO<sub>2</sub> and NOx allowances.

EKPC anticipates that it will need to purchase some SO<sub>2</sub> emission allowances above the EPA-allocated amount over the next five years. The number of allowances depends on various factors including load growth, coal quality, pollution control equipment installed, and generation availability.

If a determination is made that additional allowances need to be acquired, they can be purchased in the marketplace at the current market price.

EKPC utilizes Energy Venture Associates, a firm experienced in long-term emissions allowance forecasting, for the forecast of emission allowance prices for planning purposes.

EKPC currently plans to either rebuild or replace the scrubber at the Spurlock 2 generating station. The anticipated date of completion is mid-2008. Consequently, this scrubber will reduce EKPC's SO<sub>2</sub> emissions. In consideration of these reduced future requirements, EKPC is considering a swap of a quantity of future SO<sub>2</sub> emission allowances for a number of vintage spot SO<sub>2</sub> allowances having equivalent value.

Approximately 75% of EKPC's currently banked NOx allowances have the potential to be reduced in value due to EPA imposed "flow control". Flow control provisions were designed by the EPA to discourage extensive use of banked allowances in a particular ozone season. Flow control is triggered if the total number of banked allowances from all sources exceeds 10% of the region-wide NOx emissions budget. Therefore, EKPC anticipates the need to purchase a number of NOx allowances in 2005 since it has been emitting more tons of NOx than were allocated. This strategy would minimize the use of the "devalued" NOx allowances.

The availability and economic value of emission allowances over the long run is uncertain. Should the market price for emission allowances or lower-sulfur coal increase substantially from current estimates, EKPC will consider capital-intensive options.

#### **Tracking and Reporting**

EKPC's Environmental Affairs Department regularly monitors and measures generating station  $SO_2$  and NOx emissions. The Finance, Planning and Risk Management Department is responsible for monitoring and evaluation of the emissions allowances market and for the execution of trades. The Accounting and Materials Management Department is responsible for the accounting of the emissions allowances. The Pricing Department is responsible for regulatory filings for the recovery of emission allowance costs.